

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
22 January 2004 (22.01.2004)

PCT

(10) International Publication Number
WO 2004/007331 A2

(51) International Patent Classification⁷:

B66B

(21) International Application Number:

PCT/US2003/019856

(22) International Filing Date: 23 June 2003 (23.06.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2002-206866

16 July 2002 (16.07.2002) JP

(71) Applicant (for all designated States except US): **OTIS ELEVATOR COMPANY** [US/US]; SNYDER, Troxell K., 10 Farm Springs, Farmington, CT 06032 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **SHIBASAKI, Shusaku** [JP/JP]; 2700-50 Koike Shibayama-cho, Sanbu-gun, Chiba 340-0822 (JP).

(74) Agent: **SNYDER, Troxell, K.**; OTIS ELEVATOR COMPANY, 10 Farm Springs, Farmington, CT 06032 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

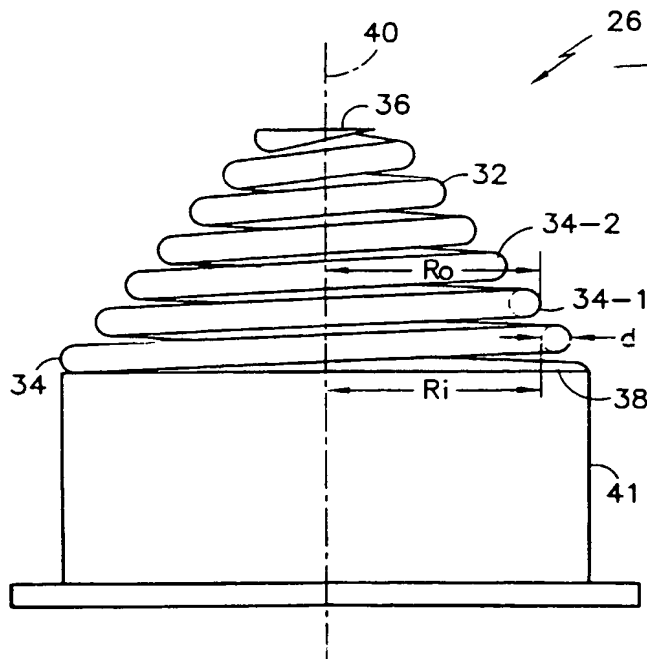
Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CONICAL SPRING BUFFER FOR AN ELEVATOR

(57) Abstract: A spring buffer (26) for an elevator car (12) includes a conical spring coil (32).



WO 2004/007331 A2

BEST AVAILABLE COPY